GENERAL DYNAMICS
Electric Boat

Dept 427: Power & Auxiliary Systems

Disciplines: Electrical Engineering, Computer Science, Nuclear Engineering

Engineers are responsible for electrical system and component design, development, qualification, and procurement for new applications using existing and modified technologies. Duties include design and development of propulsion plant and non-propulsion plant systems and components including analysis, development of specifications, technical evaluation, coordination of supplier proposals, and coordination of design services and supplier work to design, manufacture, and test submarine systems and components. Interfacing with the customer, shipyard, suppliers, and Computer Aided Design designers occur on a daily basis. Material selection, circuit analysis, and component integration are key responsibilities. Opportunities are in the area of reactor plant and steam and electric plant system and components, specifically the areas of power distribution, solid state power conversion, switchboards, controllers, impressed current cathodic protection, submersible propulsion motors, and electrical hull penetrations. Engineers also support existing designs and are responsible for component redesign of existing fleet components base on improved maintenance, safety, or reliability. In addition, engineers will act as a liaison between the shipyard and engineering when problems arise during the construction and test phases of the submarine. The engineer will investigate and troubleshoot any reported discrepancies and communicate with the applicable trades, management and Government and determine the appropriate corrective action to best support construction schedules.

Dept. 443: Instrumentation, Monitoring and Control Systems

Disciplines: Electrical Engineering, Computer Engineering, Nuclear Engineering

The next generation Aircraft Carrier Electrical group has openings for highly motivated Engineers to work in the area of network based distributed process control, information management systems, digital controls and monitoring for the ship's steam and electric plant systems. The main duty is design/development of the monitoring and control system, and will also include: development of system diagrams, interface with fluids engineers to assure specification requirements are met, ensuring operating panel designs are compliant with the Human Factors Engineering (HFE) Guidelines, design and development of display pages used for control, design/development of the Information Level Network, Modeling/Simulation of electric plant operation/behavior and performing Manning Reduction Studies. The candidates should posse knowledge in the areas indicated above or have above average instrumentation and control background. Experience in Programmable Logic Controllers and network based control system design is a plus.

Dept. 670: Process Engineering:

Disciplines: Mechanical, Electrical (Power, Electronic), Civil (Structural), Ocean, Marine, Aerospace Engineering, Physics, Computer Science/Engineering, Nuclear or Naval Architecture

The Process Engineering group is engaged with all of the functional organizations of the company in identifying and acting upon opportunities for improving our business processes, improving quality, reducing cost, and improving cycle time. Green Belts, Black Belts, Master Black Belts, Process Improvement Chiefs and the Process Engineering management team work with all levels of Electric Boat management to establish measurable metrics for specific areas of the business. The Belts work with their Process Improvement teams to analyze the metrics and identify opportunities to improve business processes through implementation of the Lean Six Sigma DMAIC methodology. Tools such as Value Stream Mapping, Process Modeling, Pareto Charts, and statistical analysis are used determine the few critical inputs to the process that most affect the process output. The Belts and the team employ tools like Design of Experiments (DOE) and Failure Modes and Effect Analysis (FMEA) to determine improvements. The Belts are expected to work in a hands-on team environment and identify and remove barriers that either slow or prevent the successful attainment of project goals. Belts will assist in the planning, organizing, and execution of processes to run the Process Engineering group. Belts will mentor and coach other Belts, employees, and management in Process Improvement methodologies. Green Belt and Black positions are internally posted. Interested applicants should have a proficiency in basic algebra and be comfortable with Microsoft Word, Excel and PowerPoint. Good interpersonal, organizational, planning, and project management skills are required. In addition, strong communication skills, written and verbal, are essential. Candidates should be self starters with an attention to details. Positions are open to all salaried and MDA represented personnel.